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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/054,512	11/13/2001	Maged E. Beshai	14796ROUS01U	4787
34845	7590	06/20/2006	EXAMINER	
McGUINNESS & MANARAS LLP			BLOUNT, STEVEN	
125 NAGOG PARK			ART UNIT	
ACTON, MA 01720			PAPER NUMBER	
			2616	

DATE MAILED: 06/20/2006

Please find below and/or attached an Office communication concerning this application or proceeding..

Office Action Summary

Application No.

10/054,512

Applicant(s)

BESHA ET AL.

Examiner

Steven Blount

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 March 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 - 35, 40 - 43 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 40 - 43 is/are allowed.
- 6) ☒ Claim(s) 1 - 35 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1 – 8, 11 and 23 – 30 and 32 - 35 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. patent 6,118,762 to Nomura et al.

With regard to claim 1, Nomura et al teaches generating a burst transfer permit and sending it to a edge node (see col 13 lines 55+) wherein the edge nodes send data bursts based on this (transmission timing period *tb*) information. See col 13, lines 57+). The examiner notes that the data bursts are assembled (at a particular time) responsive to information, the time value *tb*, in said burst transfer permit, wherein in column 15 lines 60+, there is described the process of assembling the ID number of the cells in correspondence with the transmission time, which is an obvious form of “assemblage”. The examiner notes that further examples of this “assembling process” are taught in other portions of the patent, including col 15, lines 25+ and col 14 lines 60+.

The examiner notes that it would have been obvious to one of ordinary skill in the art at the time of the invention that assembling the ID in correspondence with the transmission time is an obvious variation of “sending, by at least one of said plurality of edge nodes, data bursts to said core node, the data bursts being assembled responsive

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to information in said burst-transfer permit” and would have used this method of sending data to the core node in order to avoid congestion in the network.

With regard to claim 2, the star configuration shown in figure 1 is an obvious variation of a star configuration “with a second” core, since it is stated in col 10 lines 5+ that there are 3 ATM switches in core 3.

With regard to claim 3, see col 6 lines 25+.

With regard to claim 4, see the above and note that time period t_b is mentioned in col 13 lines 55+.

With regard to claim 5, see the discussion above with respect to the “permits”.

With regard to claims 6 - 7, see col 6 lines 25+ (burst size), time.

With regard to claim 8, it would have been obvious to one of ordinary skill in the art at the time of the invention to have sent the data simultaneously to the plurality of core nodes from the core nodes, since this would result in a greater data transfer rate.

With regard to claim 11, it would be within the ordinary skill in the art to keep the permits from being conflicted by sending them at the proper time.

With regard to claim 23, Nomura et al teaches the invention as discussed above including, importantly, sending a data rate request from the edge nodes to the core node(s). See col 6 lines 28+. While it is not explicitly stated that the “rate of a use time” or the “band information” is expressed in a “bitrate”, the examiner notes that “bitrate” is a typical means for expressing a data rate such as this, and it would have been obvious to one of ordinary skill in the art at the time of the invention to have used a “bitrate” in view of the common knowledge of this fact. The examiner notes that since the process

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described in Nomura et al of scheduling data transfers is a dynamic one and occurs continually based upon new data flow conditions, the bitrate information which is sent, as discussed above, can be considered to be "updated".

With regard to claim 24 note that it would be obvious to update the bitrate allocation as the circumstances in the network change.

With regard to claims 25 - 27, see col 6 lines 25+.

With regard to claim 28, note the bitrate discussion above.

With regard to claim 29, the aggregate of information mentioned in col 6 lines 20+ is a service class.

With regard to claim 30, it would be obvious to switch the bursts in the same core node in order to promote a compact switch unit.

With regard to claims 30 and 32, see the rejections above.

With regard to claims 33 – 34, it would have been obvious to set upper and lower limits for burst size in order to increase the data throughput.

With regard to claim 35, the burst delay would limit the burst size.

3. Claims 9 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. patent 6,118,762 to Nomura et al in view of U.S. patent 6,529,571 to Gaudet.

Nomura et al teach the invention as described above, but do not teach equalizing the propagation delays. This is taught in Gaudet. It would have been obvious to one of ordinary skill in the art at the time of the invention to have equalized the propagation delays of Nomura et al in light of the teachings of Gaudet in order to provide a more stable and uniform flow of data in the system.

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4. Claims 12 – 19 and 22 are rejected under 35 U.S.C. 103(a) as being obvious over the Applicants Admitted Prior Art (AAPA) in view of U.S. patent 6,118,762 to Nomura et al.

With regard to claim 12, AAPA teaches burst switching (page 2, lines 25+) in an optical network (page 1 lines 12+) and discusses the problem of burst latency on page 4 lines 1+. AAPA does not however teach a solution to this problem to comprise having a scheduler in the core node schedule the burst information to the edge nodes. This is taught in Nomura et al as discussed above. See also the discussion above concerning the limitation of “assembled responsive to information”.

It would have been obvious to one of ordinary skill in the art at the time of the invention to have solved the burst latency discussed in AAPA through the use of scheduling permits, in light of the teachings of Nomura et al in order to increase the proper flow of data in the system.

With regard to claim 13 – 19 and 22, see the rejections above where all of the claim limitations are discussed.

5. Claims 10, 21, and 31 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. patent 6,118,762 to Nomura et al as applied above and further in view of U.S. patent 6907002 to Beshai et al.

Nomura et al teaches the invention as described above but does not teach time locking the edge nodes. This is taught in Beshai et al. It would have been obvious to one of ordinary skill in the art at the time of the invention to have time locked the edge

nodes of Nomura in light of the teachings of Beshai et al in order to provide a more uniform flow of data in the system.

6. Claims 40 – 43 are allowed in view of the amendments presented by the applicant in the amendment filed 3/6/06.

6. Applicants arguments have mostly been addressed in the underlined portion of the rejection of the claims above. Further, with respect to claim 3, the burst size is related to the band information. With respect to claim 4, the time length is related to the arrival time. With respect to claim 6, see the discussion of band information above. With respect to claim 7, see the discussion of time length above.

Applicant argues that Nomura can only be used in a LAN. However, the examiner notes that a WAN is not claimed. The examiner notes that applicant references the fact that burst sizes and transmission times are determined by the core node (page 12, lines 1+). However, the burst size **is not** mentioned in claim 1. Applicant also argues that communication start time is determined at the terminal. Again, the time of communication is not claimed. The examiner essentially disagrees with the applicant that Nomura does not teach 'the data bursts being assembled responsive to information in the burst-transfer permit'. The examiner also maintains as discussed above that the star configuration shown in figure 1 is an obvious variation of a star configuration "with a second" core. The examiner refers applicant to the discussion of claims 9 and 10 above. With respect to claim 12 see the discussion above concerning assemblage. With regard to claim 23, see the rejection of this claim which is discussed in detail addressing applicants concerns with respect to the "bitrate".

7. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.


8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Steven Blount whose telephone number is 571 - 272 - 3071. The examiner can normally be reached on M-F 9:00 - 5:30.

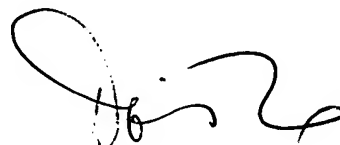
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ms. Doris To, can be reached on 571 – 272 – 7269 . The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

SB


5/8/06



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